

SUPPORT FOR THE AMENDMENT

Claim 1 is amended to specify that the stabilizer has a single rod shaped torsion element having a longitudinal axis and arranged to rotate about the longitudinal axis. Claim 1 is also amended to specify that the two first arms and the two third arms are directly attached to the torsion element wherein the torsion element can be caused to rotate about its longitudinal axis by a force exerted by the two first arms or by a force exerted by the two third arms of the spring-suspension elements. No new matter has been added. Support for the amendment can be found at FIGS. 1-3 and throughout the specification, and in particular from page 3, line 34 to page 4, line 11.

Claim 1 is amended to remove references to the terms it, its and chassis' for clarification purposes to specifically clarify the structural relationship between the torsion element and the longitudinal axis. No new matter has been added. Support for the amendment can be found in the figures and specification.

Claim 1 is also amended to clarify that the first end portions of the second arms are articulatedly attached to the second end portions of the first arms. No new matter has been added. Support for the amendment can be found in the figures and specification.

Claim 1 is also amended to clarify that the second end portions of the second extend essentially vertically up from the wheel axle housing whereby use of the term "therefrom" has been eliminated. No new matter has been added. Support for the amendment can be found in the figures and specification.

Claim 2 is amended to clarify antecedent basis. Specifically, claim 2 now specifies that the first and second members of the spring-suspension elements move reciprocally in the lengthwise direction. No new matter has been added. Support for the amendment can be found in the figures, specification and the original claims.

Claim 3 is amended to clarify antecedent basis. Specifically, claim 3 now specifies that a pressure chamber rather than a pressure gas chamber and further specifies that the movement of the first and second members of the spring-suspension elements is in the first lengthwise direction. No new matter has been added. Support for the amendment can be found in the figures, specification and the original claims.

Claim 6 is amended to clarify antecedent basis. Specifically, claim 6 no longer refers to a connection between the members. No new matter has been added. Support for the amendment can be found in the figures, specification and the original claims.

Claim 7 is amended to clarify that the pressure chamber is arranged between the first and second members of the spring-suspension elements. No new matter has been added. Support for the amendment can be found in the figures, specification and the original claims.

Entry of the amendment is requested. Upon entry, claims 1-7 are active in this application.

REMARKS

The Office Action mailed April 20, 2009 contains several formal rejections in addition to two prior art based rejections. Each rejection will be discussed in turn.

35 U.S.C. § 112 Rejections

In the Office Action, claims 1-7 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. Specifically, the Office Action includes rejections of claims 1, 2, 3 and 6, as described below.

In the Office Action, claim 1 is rejected for the use of the terms “it” and “its.” In this Amendment, claim 1 is amended to remove references to the terms “it” and “its” to clarify the structural relationship between the torsion element and the longitudinal axis. Withdrawal of the rejection is requested.

In the Office Action, claim 1 is also rejected for being unclear regarding the “first end portions.” In this Amendment, claim 1 is amended to clarify that the first end portions of the second arms are articulatedly attached to the second end portions of the first arms. Withdrawal of the rejection is requested.

Claim 1 is also rejected in the Office Action for the use of the term “therefrom.” In this Amendment, claim 1 is amended to clarify that the second end portions of the second extend essentially vertically up from the wheel axle housing whereby use of the term “therefrom” has been eliminated. Withdrawal of the rejection is requested.

Claim 2 is rejected in the Office Action for not providing antecedent basis for the term “the first direction.” In this Amendment, claim 2 now specifies that the first and second members of the spring-suspension elements move reciprocally in the lengthwise direction. Withdrawal of the rejection is requested.

In the Office Action, claim 3 is rejected for an ambiguity caused by the use of the term “pressure gas chamber.” Claim 3 is now amended to specify a pressure chamber rather than a pressure gas chamber and further specifies that the movement of the first and second members of the spring-suspension elements is in the lengthwise direction. Withdrawal of the rejection is requested.

Claim 6 is rejected in the Office Action for not providing antecedent basis for the term “the spring-suspension connection.” Claim 6 has been amended to no longer refer to a connection between the members. Withdrawal of the rejection is requested.

35 U.S.C. § 102(b) rejection over US Patent 4,065,153 to Pringle.

Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. § 102(b) as being anticipated by Pringle. This rejection is traversed.

Claim 1 specifies a device for connecting a wheel axle housing with a chassis of a vehicle, comprising: a stabilizer having a single rod shaped torsion element being arranged to rotate about its longitudinal axis; two first arms running in a crosswise direction in relation to the torsion element having first end portions that are rigidly and directly attached to corresponding end portions of the torsion element; and two second arms having first end portions and second end portions, the first end portions being articulatedly attached to second end portions of the first arms, whereby the first and second arms extend at an angle in relation to the longitudinal axis of torsion element and whereby the second end portions of the second arms are connected to the wheel axle housing and extend essentially vertically up from the wheel axle housing; and at least two spring-suspension elements with a first member that is operatively connected with the wheel axle housing, and a second member that is connected to the chassis, whereby members are arranged for reciprocal resilient movement and to transfer a portion of the chassis' weight to the wheel axle housing, wherein the spring-suspension elements have corresponding third arms having first end portions that are directly and rigidly attached to the corresponding end portions of torsion element, and second end portions that are connected with the first member; and wherein the rod shaped torsion element can be caused to rotate about its longitudinal axis by a force exerted by the two first arms or by a force exerted by the two third arms of the spring-suspension elements.

Pringle is directed to a vehicle wheel suspension assembly 10 having pivot arms 30. See Pringle at FIG. 1 and at column 2, lines 35-43 and 57-59. Each pivot arm 30 is rigidly attached to a rotatable sleeve 24 at one end, and to a collapsible link 62 at the other. See Pringle at FIG. 1 and at column 2, lines 57-61 and at column 4, lines 3-7. Each rotatable sleeve 24 is supported by shaft 20 and is also free to rotate about shaft 20. See Pringle at column 2, lines 51-59. Also connected to each arm 30 is an axle spindle 32 which supports tire(s) 34 and is located near the

connection to the collapsible link 62. See Pringle at column 2, lines 57-61. Pringle also discloses a control means 80 comprising a hydraulic cylinder 84 and a piston rod 92 wherein the control means 80 is connected to the center of collapsible link 62 at one end and to arm 30 at bracket 90 at the other. See Pringle at FIG. 1 and at column 4, lines 3-21. In operation, the spindles 32 can be raised and lowered by the control means as the piston contracts and extends to move the collapsible link 62 through its range of motion. See Pringle at FIG. 1 and from column 4, line 3 to column 5, line 3.

Claim 1 is not anticipated by Pringle for at least the reasons stated in the following paragraphs.

First, Pringle does not disclose a single rod shaped torsion element to which two first arms are directly and rigidly attached to corresponding end portions of the torsion element. Instead, Pringle discloses a pair of pivot arms 30 that are each connected to a separate rotatable sleeve 24. Because each rotatable sleeve 24 of Pringle is independent of the other, they cannot form a single rod shaped torsion element. Further, shaft 20, which supports both rotatable sleeves 24, does not meet the limitations of claim 1. This is so because Pringle does not disclose two first arms that are directly and rigidly attached to corresponding end portions of shaft 20, as would be required by claim 1. Instead, shaft 20 is provided with sleeve bearings (not shown) between rotatable sleeves 24 and shaft 20 “to insure free rotational movement of the sleeve 24.” See Pringle at column 2, lines 51-54. Thus, no amount force applied to sleeve 24 via pivot arm 30 will cause shaft 20 to rotate about its longitudinal axis as is required by claim 1. Further, shaft 20 and sleeves 24 cannot be combined to meet the limitation of a single rod shaped torsion element of claim 1 because shaft 20 and sleeves 24 define three separate elements that are all movable with respect to each other. For at least these reasons, claim 1 is not anticipated by Pringle.

Second, Pringle does not disclose a spring-suspension element having corresponding third arms that are rigidly and directly attached to the torsion element, as specified in claim 1. Instead, sleeves 24 do not have any additional direct connections other than pivot arm 30 and there are therefore no direct, rigid connections between control means 84 and sleeves 24. In the Office Action on page 4, it is asserted that control means 84 is the spring-suspension element of claim 1. Without conceding that control means 84 is a spring-suspension element, control means 84 is discussed in this context for the sole purpose of addressing the concerns raised in the Office

Action. Because there is no direct, rigid connection between control means 84 and sleeves 24, Pringle also fails to teach a device wherein a force exerted by the two third arms of the spring-suspension element can cause the rod shaped torsion element to rotate about its longitudinal axis. Also, and as stated previously, Pringle does not teach arms that are rigidly and directly attached to shaft 20.

For all of the foregoing reasons, claim 1 is not anticipated by Pringle. Because claims 2-7 ultimately depend from claim 1, they are not anticipated for at least the same reasons stated in support of claim 1. Withdrawal of the rejection is requested. Further, and as discussed below, claims 1-7 are not rendered obvious by Pringle because Pringle provides no teaching, suggestion or motivation that would enable a person having ordinary skill in the art to arrive at the claimed invention.

35 U.S.C. § 103(a) rejection over Pringle and French Patent FR 1 299 215

In the Office Action, claims 3, 6 and 7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pringle and French Patent FR 1 299 215 ('215 patent). The rejection is traversed.

Neither Pringle, FR 1 299 215 nor a combination thereof render the claimed invention obvious because Pringle and the '215 patent cannot be combined to teach the claimed invention. Specifically, neither Pringle nor the '215 patent disclose a device for connecting a wheel axle housing with a vehicle chassis including a single rod shaped torsion element that is rotatable about its longitudinal axis to which two first arms and two third arms are directly and rigidly attached whereby the single rod shaped torsion element can be caused to rotate about its longitudinal axis by a force exerted by the two first arms or two third arms, as specified in claim 1.

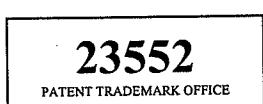
In contrast to claim 1, and as stated previously, Pringle discloses a shaft 20 which supports two rotatable sleeves 24, each of which is rigidly attached to a pivot arm 30. Further, one skilled in the art would not have modified Pringle to arrive at the claimed invention because the primary teaching of Pringle of a suspension assembly that can raise and lower tires 34 would be destroyed. For example, if Pringle were modified such that sleeves 24 were instead a continuous single rod shaped torsion element and modified such that two third arms of a spring-suspension element, such as control means 84, were directly and rigidly attached to a single

sleeve 24, collapsible link 62 would no longer be operative. This is so because the angle between control means 84 and pivot arm 30 would be rigidly fixed and because the length of the second link member 66 of collapsible link 62 is also fixed. Thus, control means 84, pivot arm 30 and second link member 66, modified to meet the limitations of claim 1, would form a fixed truss that would prevent the operation of collapsible link 62 which requires that second link member 66 be able to rotate with respect to both control means 84 and pivot arm 30. Thus, modification of Pringle to meet the limitations of claim 1 would result in a suspension assembly 10 unable to raise and lower spindles 32 and tires 34.

With respect to the '215 patent, there is no further disclosure which resolves any of the stated deficiencies of Pringle. Instead, the '215 patent is directed to a pneumatic bellows type assembly mounted directly to a chassis and a related axle body. Further, the '215 patent does not disclose a channel that is arranged in one of the spring-suspension elements for the introduction of gas into the pressure chamber, as specified in claims 3 and 6. Rather, the '215 patent discloses only an embodiment wherein a connection piece 22 is provided for the introduction of hydraulic fluid into cylinder 8.

For at least the foregoing reasons, claim 1 is not rendered obvious by Pringle, FR 1 299 215 or a combination of both. Because claims 3, 6 and 7 ultimately depend from claim 1, they also are patentable for the reasons stated in support of claim 1, as are the other remaining dependent claims. Withdrawal of the rejection is requested.

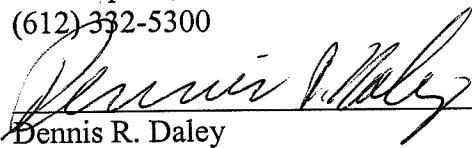
In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance.



Date: July 20, 2009

Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300


Dennis R. Daley
Reg. No. 34,994
DRD/TPJ/cjc/mls